



# Md. Adnan Maruf

Full-Stack Software Engineer · .NET / ASP.NET Core

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## PROFILE

Full-stack software engineer with 3+ years shipping revenue-generating, production software across web, desktop, and hardware-integrated systems — from requirements and system design through deployment and live support. Sole developer of record for multiple corporate and institutional clients, delivering ASP.NET Core/MVC platforms, Blazor and WPF desktop tools, and Python utilities that handle real transactions, workforce attendance, and industrial hardware operations. Track record of modernizing legacy .NET systems into containerized, maintainable architectures and integrating third-party hardware — biometric access control, RFID, and POS devices — into unified software platforms.

## TECHNICAL SKILLS

### Languages

- C#
- JavaScript
- Python
- SQL

### Frontend

- HTML5
- CSS3
- Bootstrap
- jQuery
- Razor
- Blazor

### Backend & APIs

- ASP.NET Core
- ASP.NET MVC
- Web API
- Entity Framework Core
- LINQ
- RESTful APIs

### Databases

- SQL Server (T-SQL)
- MySQL
- PostgreSQL

### Desktop & Tooling

- WPF
- Windows Services
- Tkinter
- PyInstaller
- pandas

### DevOps & Tools

- Docker
- IIS
- Git/GitHub
- Visual Studio
- VS Code
- Postman
- Swagger

### Hardware Integration

- Biometric Devices (ZKTeco, BioStar2, Nitgen, Hanbon)
- RFID
- POS Thermal Printers

### Familiar With

- Node.js
- Express.js
- Angular
- Next.js

### AI-Assisted Development

- Claude AI
- OpenAI Codex

## PROFESSIONAL EXPERIENCE

Full-Stack Software Engineer

Bio-Access Tech Co.

Nov 2023 – Present

Dhaka, Bangladesh

- Sole full-stack developer owning end-to-end delivery for 10+ client-facing production systems, from requirements gathering through deployment and post-launch support.
- Designed and built scalable web, desktop, and hardware-integrated applications with ASP.NET Core/MVC, Web API, EF Core, and SQL Server; containerized select systems with Docker for consistent deployment.
- Delivered RESTful APIs powering real-time dashboards, financial and operational reporting, and data exchange with third-party and internal HRMS systems.
- Optimized T-SQL queries, indexes, and stored procedures across production databases, improving reporting and dashboard performance.
- Refactored and modernized legacy ASP.NET applications into modular, maintainable architectures adopted across multiple client sites.
- Built and maintained hardware-integration tools for biometric and access-control devices (ZKTeco, BioStar2, Nitgen, Hanbon) across multiple client sites, automating attendance and identity data ingestion.
- Served as primary technical point of contact for clients — gathering requirements, delivering training, and supporting production go-lives and ongoing maintenance.

Programmer (.NET) – Full-Stack

Aftab Bahumukhi Farms Ltd.

Mar 2023 – Nov 2023

Dhaka, Bangladesh

- Developed internal business applications using C#, ASP.NET MVC, Entity Framework, and SQL Server.
- Built dynamic, responsive interfaces with JavaScript, jQuery, HTML, CSS, Razor, and Bootstrap.
- Designed dashboards and reports to visualize operational and financial data for management.
- Resolved production issues across frontend and backend layers, improving overall system reliability.
- Participated in peer code reviews and technical discussions to raise code quality standards.

## FEATURED PROJECTS — RECENT WORK

### Packing Order Scan & Tunnel Machine Integration Platform

MANUFACTURING / INDUSTRIAL AUTOMATION

ASP.NET Core (Blazor Server) · WPF · .NET 9 · Windows Service · Offline Licensing

- Architecting a production platform for scanning and managing packing orders, integrated directly with RFID tunnel machines in an offline-capable, on-premises environment.
- Built a Blazor Server "Manager" app for central oversight and management of packing orders and production, paired with a WPF desktop "Operator" app and Windows Service that directly drives the tunnel machine on the shop floor.
- Designed a provider-controlled offline license issuance system with versioned synchronization contracts to keep the Manager and Operator components consistent without constant connectivity.

### Employee ID Card Management System

ENTERPRISE HR TOOLING

ASP.NET MVC · SQL Server · Entity Framework

- Built a self-service web application for generating and managing employee ID cards, from employee record intake to print-ready card templates.
- Designed configurable card templates and a settings module to standardize ID formats across departments.
- Implemented secure authentication and employee data management so HR teams can run the pipeline without developer involvement.

### Account & Expense Monitoring System

CORPORATE FINANCE & INVENTORY

ASP.NET MVC · SQL Server · Entity Framework

- Built a full-stack financial and inventory system covering project earnings, expenses, purchases, inventory, companies, employees, vendors, and documents.
- Designed a role-based admin console with dashboards and financial reporting across multiple companies and employees.
- Implemented secure document upload and multi-entity data organization for centralized financial tracking.

### Real-Time Attendance Punch Viewer

WORKFORCE ATTENDANCE

ASP.NET MVC · Web API · JSON

- Built a live dashboard that polls device/API sources and streams the latest attendance punches with employee photos in real time.
- Implemented a concurrent, in-memory photo cache to keep high-frequency punch lookups fast without overloading the source system.
- Added configurable authentication and app settings to support multiple device and site configurations.

### PDF Table Extractor

DESKTOP UTILITY · PYTHON

Python · Tkinter · pandas · pdfplumber · PyInstaller

- Built a standalone Windows desktop tool that extracts structured tables (e.g. purchase-order packaging/carton rules) from PDFs into clean Excel output.
- Used pdfplumber and pypdf for parsing and pandas/openpyxl for structured exports, with a Tkinter GUI built for non-technical users.
- Packaged and distributed as a self-contained executable via PyInstaller for easy deployment on client machines.

## EARLIER PROJECTS

### Inventory & Sales Management System

RETAIL / INVENTORY

Role-based inventory, bulk sales, and automatic invoice/challan generation with an analytics dashboard (ASP.NET MVC, SQL Server).

### Parking Management System

PUBLIC FACILITY MANAGEMENT

Real-time entry/exit dashboard, POS-style token checkout, configurable fee/fine logic, role-based access, and CSV/PDF reporting; containerized with Docker (ASP.NET Core MVC, .NET 8).

### Ticket Management System

TICKETING & POINT OF SALE

POS thermal-printer integration for single/bulk ticket issuance, real-time revenue dashboard, and PDF reporting; containerized with Docker (ASP.NET Core MVC, .NET 8).

### Visitor Management System

VISITOR & ACCESS MANAGEMENT

Touch-optimized self-registration kiosk with photo capture, host approval workflow, and daily/monthly visit reporting (ASP.NET MVC, SQL Server).

### Real-Time People Monitoring Dashboard

SECURITY & OCCUPANCY MONITORING

Real-time occupancy and entry/exit tracking across multiple sites, built on integrated biometric device data, for security and emergency response use cases (ASP.NET MVC, T-SQL).

### Multi-Branch Web Attendance Platform

MULTI-BRANCH ATTENDANCE

Web-based attendance platform deployed and customized across several corporate and banking client sites, with device integration and centralized reporting (ASP.NET MVC, SQL Server).

## EDUCATION & CERTIFICATIONS

### B.Sc. in Computer Science & Engineering

Green University of Bangladesh, Dhaka

2020

- Interactivity with JavaScript — University of Michigan (Coursera)
- Advanced Styling with Responsive Design — University of Michigan (Coursera)